

Claims

- [c1] 1. An arrangement for delivering EGR gas to a combustion engine, said arrangement comprising:
a four-stroke internal combustion engine having multi-cylinders,
each of said cylinders comprising:
a combustion space, an associated piston, and at least one inlet valve and at least one exhaust valve (10) for controlling connection between the combustion space in the cylinder and an intake system and an exhaust system, respectively; and
a rotatable camshaft (18) having a cam curve (23) configured to interact with a cam follower (17) for operating the respective at least one exhaust valve (10) during a first opening and closing phase, the cam curve (23) being further configured to interact with a second cam follower (20) during a second opening and closing phase that is phase-offset in relation to the first opening and closing phase and which connects the cylinder with the exhaust system during the induction stroke after the exhaust stroke is completed.
- [c2] 2. The arrangement as recited in claim 1, further comprising:
the cam curve having a first rising gradient (23a) that interacts with the first cam follower (17) during the first opening phase of the exhaust valve; and
the cam curve having a second rising gradient (23b) that interacts with both cam followers (17, 20) during both opening

phases of the exhaust valve (10).

- [c3] 3. The arrangement as recited in claim 2, further comprising:
the cam curve (23) having a first and a second falling gradient
(23c, 23d) essentially corresponding to the rising gradients (23a,
23b).
- [c4] 4. The arrangement as recited in claim 1, wherein the cam
followers (17, 20) are mounted on a pivotal arm.
- [c5] 5. The arrangement as recited in claim 4, wherein the pivotal arm
forms a rocker arm (13) located in the cylinder head and being
configured to act directly on the exhaust valve (10).
- [c6] 6. The arrangement as recited in claim 4, wherein the pivotal arm
forms a cam follower (36) located beneath a respective cylinder
head and which is configured to indirectly act on the exhaust
valve (10) by way of a push rod (38) and a rocker arm (39).
- [c7] 7. The arrangement as recited in claim 6, wherein the pivotal arm
has a pivotally supported secondary arm (19) shiftable between
an inactive position and an active position and which supports
the second cam follower (20).
- [c8] 8. The arrangement as recited in claim 7, wherein the secondary
arm (19) is hydraulically shiftable between the active and inactive
positions by an hydraulic piston (21).
- [c9] 9. The arrangement as recited in claim 8, wherein the hydraulic

piston (21) is connected to a hydraulic fluid source by a hydraulic fluid duct (26, 27) and a controllable non-return valve (28).

- [c10] 10. The arrangement as recited in claim 9, wherein the controllable non-return valve (28) is configured so that in one operating position, the hydraulic fluid is permitted to flow in both directions, and in the event of hydraulic pressure in excess of a certain specific value, the non-return valve switches to a second operating position which prevents a return flow of hydraulic fluid, the secondary arm (19) being locked in relation to the arm (13; 36).